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(Reaffirmed 2016)

Indian Standard

**SPECIFICATION FOR
CANS FOR 16 mm PROJECTOR SPOOLS**

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
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Indian Standard

SPECIFICATION FOR CANS FOR 16 mm PROJECTOR SPOOLS

Cinematographic Equipment Sectional Committee, ETDC 47

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Indian Standard
**SPECIFICATION FOR
CANS FOR 16 mm PROJECTOR SPOOLS**

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 24 May 1970, after the draft finalized by the Cinematographic Equipment Sectional Committee had been approved by the Electrotechnical Division Council.

0.2 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the dimensions and other requirements for cans for 16 mm cinematograph projector spools of 60 to 600 m capacity.

2. MATERIAL, CONSTRUCTION, WORKMANSHIP AND FINISH

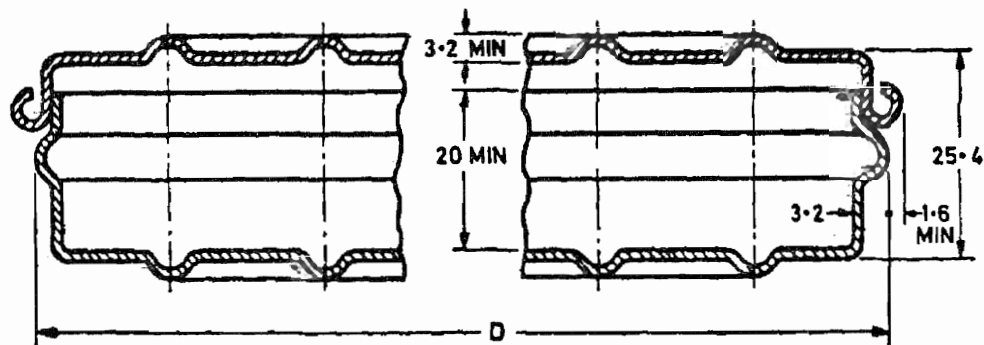
2.1 Material and Construction

2.1.1 The cans shall be either manufactured from material of corrosion-resistant type or treated to resist corrosion.

2.1.2 The cans shall be made of:

- a) mild steel sheet of thickness 0.56 mm or more, with ribs and rolled edges of dimensions given in Fig. 1; or
- b) a non-corrosive alloy, with construction same as or different from that shown in Fig. 1, provided that the remaining requirements of this standard are met and that the rigidity, elasticity and strength of the cans are equivalent to those of cans conforming to (a) above.

*Rules for rounding off numerical values (revised).



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR CANS

2.2 Workmanship and Finish — The cans shall be manufactured in a thoroughly workmanlike manner and in accordance with good engineering practice. They shall be free from sharp edges. The finish shall protect the can adequately against corrosion under normal conditions of use.

3. DIMENSION

3.1 For various spool capacities the dimension D (see Fig. 1) of the cans shall be as given in Table 1.

TABLE 1 DIMENSION FOR CANS FOR 16 mm PROJECTOR SPOOLS

SPOOL CAPACITY	DIMENSION D
m	mm
60	130
120	180
240	250
360	313
480	345
600	384
	+ 2 - 0

4. MARKING

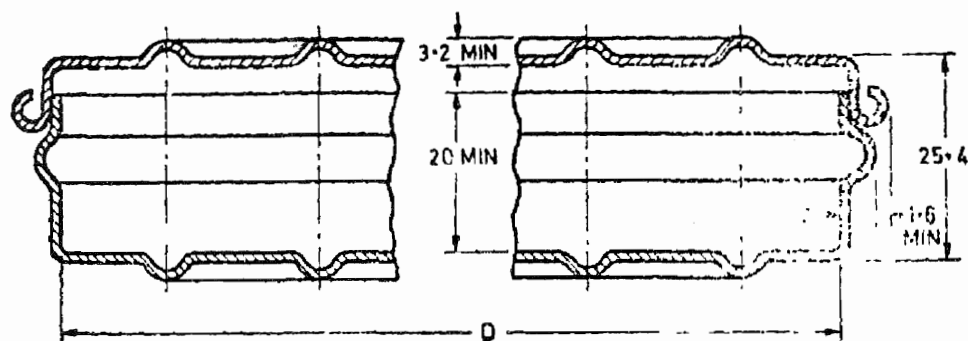
4.1 All cans shall be marked legibly and indelibly with the following:

- Name and/or code number of manufacturer, and
- Country of manufacture.

AMENDMENT NO. 2 JULY 1975
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Alteration

(Page 4, Fig. 1) — Substitute the following for the existing figure:



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR CANS

(ETDC 47)

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Corrigendum

(Page 5, clause 5.4, line 2) — Substitute ' (see 2.2)' for ' (see 2.3)'.

(ETDC 47)

4.1.1 Cans may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. TESTS

5.1 Classification of Tests

5.1.1 Type Tests — The following shall constitute type tests:

- a) Visual examination and dimensional check-up (5.2),
- b) Test for drop resistance (5.3), and
- c) Test for corrosion resistance (5.4).

5.1.2 Routine Tests — Visual examination and dimensional check-up (5.2) shall be carried out as routine tests.

5.2 Visual Examination and Dimensional Check-Up — The cans shall be examined visually and checked for the dimensions specified in this standard.

The can surfaces and mounting surfaces shall be free from voids, nicks, scratches and other surface imperfections. Surface imperfections which fall within a circle of 1.5 mm diameter and, in case of scratches, which do not exceed 12.5 mm in length shall, however, be allowed.

The cans shall conform to the specified dimensional requirements.

5.3 Test for Drop Resistance — The can under test shall be packed with a suitable fully loaded spool and dropped through a vertical distance of at least 1.5 m upon a concrete floor to strike on edge.

The can shall not exhibit any splitting, cracking or chipping.

5.4 Test for Corrosion Resistance — The cans shall be tested for corrosion resistance (*see* 2.3) as prescribed in Appendix A.

APPENDIX A

(Clause 5.4)

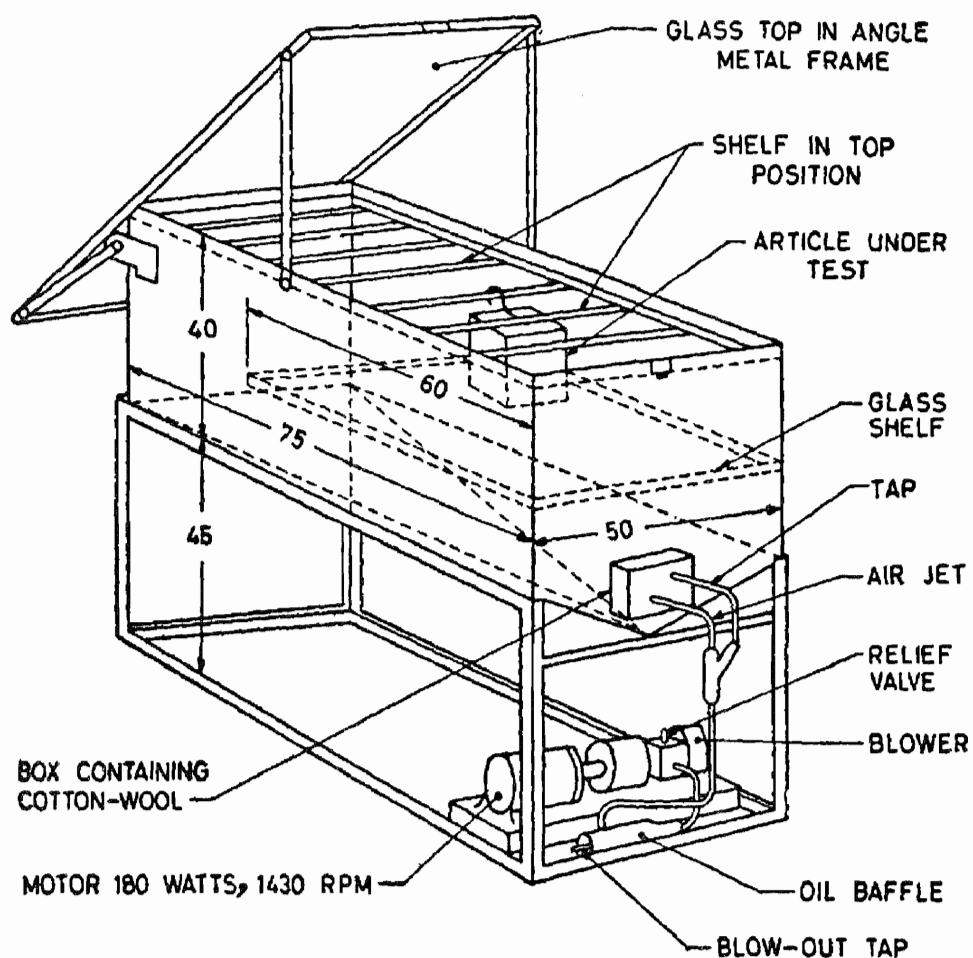
TEST FOR CORROSION RESISTANCE

A-1. APPARATUS

A-1.1 Salt Spray Chamber — The chamber for this test shall be so constructed that the salt spray is produced in the lower part of the chamber, in the upper part of which the parts to be exposed are suspended. The construction of the ceiling, walls and other parts of the chamber shall be such that no condensate can drip on the test specimen. The spray shall be produced by an atomizer employing compressed air free from all impurities.

A-1.1.1 In general, a salt spray chamber shown in Fig. 2 with a spraying arrangement as shown in Fig. 3 and complying with the following requirements would be suitable:

- a) The cabinet shall approximately be of the dimensions shown, and the cabinet and its internal fittings shall be made of monel metal or other suitable material. A shelf, capable of being fitted in the upper or lower part of the cabinet shall be provided.
- b) The air used for atomizing the salt solution shall be clean. It shall be possible to adjust the pressure by a relief valve or by the pressure outlet of the blower.
- c) It shall be possible to control the amount of spray by adjusting the position of the lower nozzle C by unscrewing the bottom lock-nut B. The diameter of the nozzles shall be 1.5 mm. A tap and second branch in the air line shall be available for agitating the salt solution as required.
- d) The spraying apparatus shall be capable of atomizing not less than 1 450 ml salt solution per hour. The quantity of solution sprayed per cubic metre capacity of the chamber shall be approximately 175 ml per minute.
- e) A container filled with cotton wool shall be provided as shown in Fig. 2. It acts as a breather and provides an outlet for the air which is constantly being pumped into the chamber, the cotton wool acting as a filter and preventing salt mist from being discharged into the atmosphere.



All dimensions in centimetres.

FIG. 2 SALT SPRAY CHAMBER

A-2. PROCEDURE

A-2.1 The nozzle for atomizing the salt solution shall be adjusted for maximum amount of spray.

A-2.2 The pressure of the solution shall be maintained between 0.29 and 0.35 kg/cm².

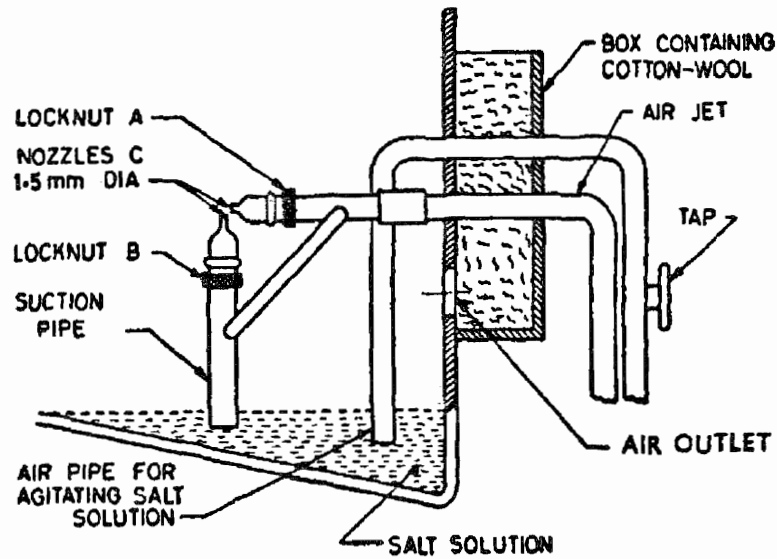


FIG. 3 DETAILS OF SPRAYING ARRANGEMENT

A-2.3 The test piece shall be sprayed in the chamber with 5 percent solution of sodium chloride in water at the standard temperature of $27 \pm 2^\circ\text{C}$ for a cycle of 50 hours consisting of two periods, each period being of 24 hours of spraying and one hour of draining.

A-2.4 After removal from the salt spray chamber, the can shall not show any sign of corrosion or electrolytic action.

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